

Recensement Census



1993 NATIONAL CENSUS TEST

REPORT 21

LABOUR MARKET ACTIVITIES

RECENSEMENT

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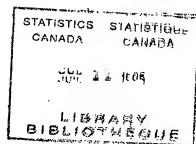
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1993 NATIONAL CENSUS TEST

REPORT 21

LABOUR MARKET ACTIVITIES

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Executive Summary

This report is composed of two parts. Part I summarizes results for the industry filter question. Part II summarizes results for the questions on labour market activities.

I. Industry Filter Question

The industry filter question on the National Census Test sought to determine the general industry category to which the respondent belonged. It was designed to be used in conjunction with write-in responses provided to questions on employer's name, especially in situations in which the respondent had not provided sufficient information to ensure an accurate assignment of an industry code.

Results from the 1993 NCT indicate that industry filter question would be of help in coding manufacturing and wholesale and retail trade responses. It would be useful in 25% of cases involving wholesale trade, 11% involving manufacturing and 8% involving retail trade. This would affect the coding of about 700,000 responses.

However, the question would be of little use in coding responses involving the three levels of government or other industries. Coding to local government would be improved in 2% of cases, to provincial government in 1% of cases, and to federal government and other industries in an insignificant number of cases.

The conclusion is that, because of the relatively small number of cases that would be improved, this filter question would not significantly improve overall industry coding accuracy.

II. Labour Market Activities

1. Comparability with 1991 Census Estimates

Derived variable distributions for each of the 1993 NCT Questions 28-33, 44 and 45 compared well with comparable 1991 Census variable distributions.

(National and provincial level comparison tables were prepared and analyzed.)

2. Comparability with Estimates from the Monthly Labour Force Survey

The 1993 NCT labour force activity estimates compared quite well with those of the monthly Labour Force Survey, in particular estimates from the October 1993 LFS. With a few exceptions, percentage differences relative to the LFS did not exceed those obtained during certification of the 1991 Census labour force activity estimates.

As was the case in the 1986 and 1991 Censuses, employment and unemployment data were less comparable in the 1993 NCT relative to the October and November 1993 Labour Force Surveys for the younger and older age groups, (or those between 15 and 24 years of age and those 65 years of age and over).

With respect to "when last worked" estimates, the estimates compared quite well, with the exception of one category, the "never worked in lifetime" category. A similar situation also was encountered in the 1991 Census however.

3. Comparability with 1993 Survey of Consumer Finances Estimates

As was the case in the 1981, 1986 and 1991 Censuses, large differences in estimates, particularly in the 40-48 weeks category, were observed between the 1993 NCT and the 1993 Survey of Consumer Finances. Self-enumeration methods of data collection mostly account for the differences noted.

The 1993 NCT estimates of persons working mostly full-time or part-time weeks in 1992 compared quite well to 1993 SCF estimates.

4. Impact of Introduction of Hours of Unpaid Work Questions (1993 National Census Test Questions 27 and 28) - General

Given the generally high, or acceptable, levels of comparability of the 1993 NCT derived variable distributions to 1991 Census and external data sources, especially the hours of paid work in the reference week and labour force activity derived variables, it can be concluded that there were no negative effects introduced by Questions 26 and 27.

5. Response Rates

1993 National Census Test response rates, especially those following follow-up by the interviewers, were quite high for each of questions 28-33, 44 and 45. Initial response rates, as measured in the Edit Failure Study, were generally acceptable.

6. Respondent Comments (Step 10)

Review of the actual comments provided by all respondents providing comments in Step 10 on Questions 28-33, 44 and 45 was undertaken. Three main areas of difficulty were observed through this review of respondent comments. These included (1) objections; or confusion experienced by respondents who were retired, (2) respondent errors, or respondent confusion over skip instructions, particularly those in Question 28 and (3) respondent difficulties with Questions 28-45, where the respondent was a multiple job-holder.

These areas of difficulty were also identified through observation or review of the Census Help Line operations and Interviewer De-briefing sessions (and session summaries).

To help reduce skip instruction errors in Question 28, the "none" check circle could be moved up before the number of hours write-in box. A check circle for fully retired persons (and possibly for persons permanently unable to work for pay) in Question 28 or 29 could also be added.

7. Change in Wording of Question 28

The wording of Questions 28, 31, 32 and 33 was changed where necessary to accommodate the introduction of the new hours of unpaid work questions. The wording in Question 28 (hours worked in the reference week) was altered more than the other questions.

In french, the question included the terms, «travail contre rémunération ou à un travail autonome». An investigation was made in order to determine whether this terminology, especially «travail contre rémunération», presented any problems to french respondents.

Although comparisons of hours of paid work distributions obtained in the 1993 NCT and 1991 Census by language of questionnaire completed did not indicate a problem in the wording of the french version of 1993 NCT Question 28, it is probable that the wording used in Question 28 in the french 1993 NCT questionnaires could be improved.

I. Industry Filter Question

A. Introduction

Question 36 on the 1993 National Census Test (NCT) was a question added for the Industry variable. The purpose of this addition was to provide further information to help Industry coders in correctly assigning a code in certain industry sectors when that sector had not been specifically stated (e.g., sales was given as an industry description, but retail or wholesale was not specified).

B. Background

This 'filter question' had been originally proposed as an aid in automatically coding industry responses. A similar, although longer, question is asked in the U.S. Census and, at Statistics Canada, Business Register coders make use of a filter question to help in coding new establishments added to the Central Frame Data Base.

In addition, the United Nations recommends collecting information on 'Industry Sector' in its guidelines for Census data collection, and the evaluation report from the 1991 Regional Office Processing Task had recommended the inclusion of a Retail/Wholesale check box.

As proposed, responses to the filter question were to be evaluated on their usefulness in providing higher quality coding. It was not necessary that this be an 'automatic' operation. Data analysis would determine if results of the filter question could be applied in an automatic fashion.

Although the cancellation in August 1993 of plans to code Census industry and occupations by automatic methods lowered the priority for inclusion of a new question in the 1996 Census, the evaluation continued.

Thus, in addition to the 'Employer's Name' (Question 34 in the NCT) and the 'Kind of Business' (Question 35 in the NCT), the respondent was asked to answer a 'filter question' (Question 36) asking to which general industry category did he/she belong?

Possible answers were:

- Manufacturing
- Wholesale Trade
- Retail Trade
- Federal Government
- Provincial or Territorial Government
- Local or Municipal Government
- Other (e.g. Health, Education, Accommodation, Construction, Agriculture, Transportation)

The examples for the other category had not been included in earlier versions of the filter question. However, it was evident from focus testing of the original question wording that respondents wanted a place to enter their industry and were confused if it wasn't specifically mentioned.

The word **category** seemed to be the most easily understood of several wording versions tested (e.g. **sector** caused some problems of interpretation).

C. Results

All results are from the first raw data file which was considered as being FINAL.

The analysis was done in examining the data captured write-ins to the industry questions. Once the categorizing and analysis of records started, any further minor updates to this NCT file were not considered (e.g. there were some later deletions of several hundred duplicate records and non-response households).

1. Multiples

Table 1 shows an analysis of those respondents who had checked two mark boxes.

These results are unweighted counts and reflect a small proportion of all the respondents (129/21,477 or .6 % of the respondents in the industry universe). They are included here for the sake of completeness. The results are not statistically significant, but do indicate that multiple responses can retain useful information for coders.

Table 1 Respondents providing two answers to Question 36 of the NCT

Reason for giving two answers	Count	Percent
Total	129	100
More than one job	15	12
Manufacturing/Wholesale/Retail	53	41
Government levels involved	36	28
Want to give more details	18	14
No apparent reasons	7	5

In these results there were four reasons found for the respondents marking more than one circle.

Having more than one job.

The correct response in this case would have been the respondent marking a circle for the job at which he/she worked the most hours, as indicated in the questionnaire.

Failing to discriminate between the Manufacturing, Wholesale and Retail sector.

For example, people working in a fish plant or a bakery would check two of these categories because their products (fish, bread) would eventually go through these phases of production even though their specific establishment wasn't involved in every one of them.

Failing to discriminate between 'Government' and 'Other'.

A typical example were people in Education and Health Care identifying their group given as an example for the 'Other' category but still considering the government levels' mark boxes as an appropriate answer.

The desire of the respondent to provide as much information as possible.

For example, somebody working for a farm equipment retail store would check 'Retail Trade' and "Other" for agriculture.

Finally, there were 6 odd cases where there was no apparent reasons behind the two mark boxes provided. For example, selling hot-dogs and checking 'Manufacturing' and 'Other'.

In all but the last 6 cases cited, the multiple responses were still useful to some degree in conjunction with the other written-in responses.

2. Single Responses

There were 21,477 respondents who by their answers to other questions in the National Census Test indicated that they had worked in the previous 23 months. This is the 'universe' of persons who should have answered the filter question. Question 36 was answered by 20,342 of these respondents (95%) leaving 1,004 non-respondents (5%). In addition there were two invalid answers coded to a non-existent Box 8 (data entry errors) and, as discussed previously, 129 respondents who checked two mark boxes.

Table 2 summarizes the results for single responses.

The responses have been broken down based on analyzing whether the respondent was right, wrong or if the filter question helped in coding. In the latter case, nothing in the written-in responses gave an indication as to whether the respondent was right or wrong; the answer given being too vague or general. In these cases the additional information in the filter question resolved these coding ambiguities.

An additional analysis was applied to identify respondents who checked Provincial or Municipal government in cases where the Standard Industrial Classification doesn't classify them as government. It was quickly evident in a first glance at the data that this was a significant source of error and the data were later reevaluated to estimate the extent of this error. As an example, it would be virtually impossible for respondents working for Ontario Hydro to know that they are classified in the Major Group "Other Utility Industries" and not Provincial Government. In other cases, such as people in Education and Health, indications had been given not to declare Provincial government as a general industry, but to check mark box "Other".

In this analysis it was found that 82 % of the wrong entries for Provincial government (i.e. 752 of the 921 records) were due to this problem. For Municipal government the percentage was less at 61 % (i.e. 143 of 235 records).

Table 2 Number of respondents by general industry category (NCT Question 36)- Restricted to those respondents who had supplied a single response only

Answer category		Total	Right	Wrong	Filter Question Helped
All Filter Responses	Count	20,342	15,888	3,620	834
	%	100	78	18	4
Manufacturing (13 % of Respondents)	Count	2,763	2,144	301	301
	%	100	78	11	11
Wholesale Trade (3 % of respondents)	Count	704	214	314	176
	%	100	30	45	25
Retail Trade (18 % of Respondents)	Count	3,859	2,047	1,500	312
	%	100	53	39	8
Federal Government (4 % of Respondents)	Count	882	765	117	0
	%	100	87	14	0
Provincial Government (6 % of Respondents)	Count	1,339	406	921	12
	%	100	30	68	1
Municipal Government (3 % of Respondents)	Count	643	392	235	16
	%	100	61	36	2
Other (47 % of Respondents)	Count	10,152	9,920	232	-
	%	100	98	2	-

Table 2 indicates that most respondents (78 %) checked the proper box when answering the filter question. However, these are cases in which we were able to confirm that the proper box was checked because the respondent had already provided enough information in Question 34 (Employer's Name) and Question 35 (Kind of Business) to identify the general industry category. This filter information would therefore be useless in a manual operation.

On the other hand the high level of 'wrong' response indicates that it would be impossible to use this 'filter question' to filter responses for automatic code assignment. At best the filter could be applied to differentiate between conflicting code choices that had already been selected or as a 'warning' if the code selected did not agree with the box checked in the general industry category.

There were two categories (Provincial Government and Wholesale Trade) where over half the classifiable responses were wrong.

As noted previously, many of the Provincial government errors were made by people who were working in jobs 'related' to Provincial Government but failed to check the "Other" mark box as was indicated on the questionnaire and in the NCT guide. The majority of these respondents worked in the Education and Health sector.

The Wholesale Trade category was incorrectly answered by 45% of the respondents who checked that answer. On the other hand, this same answer category was the one in which the filter question was the most useful; helping in the industry coding for 25% of the cases.

One result of note is that there was no gain in differentiating the three levels of Government. It had been expected that this would provide help when the government level had not been specified. This was not found to be a significant factor. The largest gain was for municipal government (and this represented only 2 % of these cases).

The Manufacturing answer category was another group in which the filter question was helpful (in 11% of manufacturing cases).

D. Conclusions

The results do not support the usefulness of the filter question for automatic 'filtering' of responses.

The inclusion of different government levels was not helpful.

The number of cases in which the filter question helped for Retail/Wholesale/Manufacturing was significant (i.e. 8, 25 and 11 % of these individual sector responses).

Although these numbers may appear relatively small, they reflect the assignment of 4 % of all industry codes (almost 180,000 codes in a full Census reflecting a weighted response of approximately 700,000 persons)-

In days of declining data quality, the correct assignment of industry responses for 700,000 persons is not insignificant.

When future testing opportunities arise, it would seem appropriate to test a smaller question of the following type:

For respondents working in product sales or manufacturing please indicate if the industry is involved in:

- 1) Retail Trade
- 2) Wholesale trade
- 3) Manufacturing

This revised question would:

- 1) Retain the data quality positives seen in the analysis.
- 2) Avoid the I DON'T KNOW WHERE TO ANSWER confusion that was seen for many of the respondents in focus group testing. In this case, with the narrower reference to product sales and manufacture, only respondents that could give helpful additional information will be targeted.
- 3) Reduce the formatted size.

II. Labour Market Activities

A. Introduction

The remainder of this report summarizes the results of the analysis of 1993 NCT Questions 28-33, 44 and 45 (the labour force activity, weeks worked and full-time, part-time weeks worked questions).

No new, or significantly altered, labour force activity status, weeks worked, or full-time, part-time weeks worked questions were tested in the 1993 NCT. Only relatively minor question wording changes were made to 1993 NCT Questions 28, 31-33 and 44 as a result of the decision to include and test the new hours of unpaid activities questions (Questions 26 and 27) in the 1993 NCT.

The objectives of analysis of 1993 NCT Questions 28-33, 44 and 45 were (1) to measure data quality obtained in each of the questions, through comparisons to other data sources (census or external) and, (2) to determine if there was any negative impact on the estimates obtained in Questions 28-33, 44 and 45, as a result of the introduction of the new hours of unpaid work activities questions.

This is an abbreviated version of a report which contains detailed data at the provincial as well as national levels, and/or data tables by age as well as sex.

The reader should note that in this report invalid responses and non-responses for the 1993 NCT derived variables, (which could not be fully edited or imputed), have been removed and re-distributed, or added to the other categories of the derived variables, in direct proportion to the size of each of the other categories of the variable.

Although the 1993 NCT derived variables for Questions 28-33, 44 and 45 were not fully edited and imputed for non-response, invalid responses, or "in-conflict" responses, deterministic assignments for skip instruction errors, multiple responses, as well as assignments of "not applicable" values, for persons outside the universe of each question, were made.

Responses to 1993 NCT Questions 34 and 35 (industry) and 37 and 38 (occupation) were not coded and, therefore, could not be analyzed in depth. The content of these questions also remained unchanged in the 1993 NCT. The written-in responses for these questions were examined and no noticeable effects of the inclusion of the unpaid work questions were found.

B. Comparisons With Other Data Sources

1. Comparisons With the 1991 Census

In general, the 1993 NCT weighted estimates for Questions 28-33, 44 and 45 compared quite well with 1991 Census estimates.

The 1991 Census estimates were made comparable to the 1993 NCT estimates by exclusion of persons outside the Labour Force Survey universe (including persons less than 15 years, persons residing in the Yukon and Northwest Territories, persons residing on Indian reserves and settlements, persons outside Canada and persons working in the Armed Forces). This was done because the 1993 NCT estimates were based on a Labour Force Survey sample.

i) Question 28 - Hours Worked for Pay or in Self-Employment

The data obtained from the 1993 NCT hours worked for pay or in self-employment question compared reasonably well with fully edited data from the 1991 Census hours worked question. Percentage point differences ranged from 0.1 of one percentage point (for the 41-49 hours worked category) to 3.3 percentage points (for persons reporting "none"). The percentage of persons reporting 40 hours worked in the reference week differed by 3.1 percentage points.

TABLE 1-i
COMPARISONS OF HOURS WORKED FOR PAY OR IN SELF-EMPLOYMENT ESTIMATES,
1991 CENSUS AND 1993 NCT, CANADA

	1991 Census %	1993 NCT %
Total	100.0	100.0
1-19 Hours	5.7	6.9
20-29 Hours	4.6	4.4
30-39 Hours	13.6	11.5
40 Hours	19.9	16.8
41-49 Hours	5.6	5.7
50 or More Hours	8.6	9.5
1 or More Hours	58.0	54.7
None	42.0	45.3

These differences were viewed as acceptable, however, given differences in reference periods and the absence of complete editing and imputation processing in the 1993 NCT. In addition, despite some differences in the distributions compared, the 1993 NCT and 1991 Census hours worked in the reference week distributions were, in general, similarly distributed.

ii) Question 29 - On Temporary Lay-off or Absent in the Reference Week

The 1993 NCT data for this question compared favourably with data from the 1991 Census.

Persons reporting that they were "on temporary lay-off, from a job to which they had expected to return", in the reference week accounted for 2.4% of the total in the 1993 NCT and 2.3% of the total in the 1991 Census, while the percentage of those reporting that they were absent in the reference week differed by only 0.3 of one percentage point. The percentage of persons reporting that they were not on temporary lay-off, or absent, in the reference week in the two data sources differed by the greatest amount, however, or by 3.5 percentage points.

TABLE 1-ii
COMPARISONS OF ON TEMPORARY LAYOFF OR ABSENT IN THE REFERENCE WEEK
ESTIMATES, 1991 CENSUS AND 1993 NCT, CANADA

	1991 Census %	1993 NCT %
Total	100.0	100.0
Absent	3.2	2.9
Temporary Layoff	2.3	2.4
No	36.5	40.0
Not Applicable	58.0	54.7

iii) Question 30 - New Job to Start Within the Next Four Weeks

The data for 1993 NCT Question 30 compared reasonably well with the 1991 Census. The percentage of persons reporting "yes" differed by only one-half of one percentage point. The percentage of persons reporting "no", however, differed by 4.1 percentage points.

TABLE 1-iii
COMPARISONS OF NEW JOB TO START WITHIN THE NEXT FOUR WEEKS ESTIMATES,
1991 CENSUS AND 1993 NCT, CANADA

	1991 Census %	1993 NCT %
Total	100.0	100.0
Yes	1.5	1.0
No	40.5	44.6
Not Applicable	58.0	54.4

Given differences in reference periods and the fact that edited 1991 Census data were compared to incompletely edited 1993 NCT data, these differences in estimates can be viewed as acceptable.

iv) Question 31 - Looked for Full-time or Part-time Work in the Past Four Weeks

The 1993 NCT and 1991 Census data compared quite favourably. The percentage of respondents who reported that they had looked for part-time work in the two data sources differed by only 0.2 of one percentage point at the national level. Those reporting that they had looked for full-time work differed by only 0.9 of one percentage point.

TABLE 1-iv
COMPARISONS OF LOOKED FOR FULL-TIME OR PART-TIME WORK
IN THE PAST FOUR WEEKS ESTIMATES, 1991 CENSUS AND 1993 NCT, CANADA

	1991 Census %	1993 NCT %
Total	100.0	100.0
Yes, Full-time	6.4	5.5
Yes, Part-time	1.3	1.5
No	34.3	38.5
Not Applicable	58.0	54.5

The percentage of respondents reporting that they had not looked for full-time or part-time work, however, differed to a greater degree, or by 4.2 percentage points at the national level.

v) Question 32 - Reason Unable to Start Work in the Reference Week

The reason unable to start work in the reference week distributions compared very closely in the two data sources. Percentage point differences ranged from 0 to 0.4 of one percentage point only at the national level.

TABLE 1-v
COMPARISONS OF REASON UNABLE TO START WORK IN THE REFERENCE WEEK ESTIMATES,
1991 CENSUS AND 1993 NCT, CANADA

	1991 Census %	1993 NCT %
Total	100.0	100.0
Yes, Could Have Started Work	6.5	6.2
Already Had a Job	0.1	0.1
Illness or Disability	0.1	0.1
Personal or Family Responsibilities	0.1	0.1
Going to School	0.7	0.3
Other Reasons	0.2	0.2
Not Applicable	92.3	92.9

vi) Question 33 - When the Respondent Had Last Worked

The 1993 NCT data for this question also compared closely to the 1991 Census estimates. Percentage point differences ranged from 0 to 3.0 percentage points at the national level.

TABLE 1-vi
COMPARISONS OF WHEN THE RESPONDENT HAD LAST WORKED ESTIMATES,
1991 CENSUS AND 1993 NCT, CANADA

	1991 Census %	1993 NCT %
Total	100.0	100.0
Before 1990/1992	20.7	20.7
In 1990/1992	6.5	3.5
In 1991/1993	66.3	67.8
Never Worked	6.4	8.0

vii) Question 44 - Weeks Worked in 1992

At the national, the 1993 NCT and 1991 Census distributions compared quite well, for all of the weeks categories compared. Most of the categories differed by no more than one percentage point. The weeks "none" category (for persons who worked in 1993 only) and the weeks "not applicable" category (for persons who worked before 1992, or never worked), however, differed by one percentage point and 2.1 percentage points, respectively. (The weeks "not applicable" category, therefore, was the only category with a percentage point difference which exceeded one percentage point, at the national level.)

TABLE 1-vii
COMPARISONS OF WEEKS WORKED IN 1990-1992 ESTIMATES,
1991 CENSUS AND 1993 NCT, CANADA

	1991 Census %	1993 NCT %
Total	100.0	100.0
1-13 Weeks	5.8	5.5
14-26 Weeks	8.3	7.3
27-39 Weeks	5.7	4.9
40-48 Weeks	8.5	7.8
49-51 Weeks	5.5	4.6
52 Weeks	36.3	37.0
None	2.7	3.7
Not Applicable	27.2	29.3

viii) Question 45 - Full-time or Part-time Weeks Worked in 1992

The 1993 NCT "worked mostly full-time weeks in 1992" category compared reasonably well with comparable 1991 Census data ("worked mostly full-time weeks in 1990"). The estimates in the two data sources differed by 3.3 percentage points. The "worked mostly part-time weeks in 1992 category, however, differed by only one-half of one percentage point. The "not applicable" category (for persons who did not work in the reference year) differed by 2.8 percentage points.

TABLE 1-viii
COMPARISONS OF FULL-TIME OR PART-TIME WEEKS WORKED IN 1990-1992 ESTIMATES,
1991 CENSUS AND 1993 NCT, CANADA

	1991 Census %	1993 NCT %
Total	100.0	100.0
Full-time	56.1	52.8
Part-time	14.1	14.6
Not Applicable	29.8	32.6

(For a discussion of 1993 NCT full-time and part-time weeks worked in 1992 estimates, compared to the 1993 Survey of Consumer Finance estimates, as well as additional information, please see Section B-3, Comparisons with the Survey of Consumer Finances, below, in this report.)

2. Comparisons With the Labour Force Survey

(1) Hours Worked for Pay or in Self-Employment Estimates

Given the introduction of the new hours of unpaid work questions in the 1993 NCT (Questions 26 and 27), the traditional hours working for pay or in self-employment question in the 1993 NCT (Question 28) was given additional attention. It was necessary to try to determine whether there were any negative impact(s) on Question 28 attributable to the introduction of Questions 26 and 27 in the 1993 NCT. This was done by making comparisons of the data obtained in Question 28 to other data sources to see whether the distribution for this question was reasonably comparable to the other data sources (including both the 1991 Census and the Labour Force Survey).

Appendix Table A-1 compares actual hours worked in the reference week data at the national and provincial levels by sex from the 1993 NCT and the October, November and December 1993 Labour Force Surveys.

All factors considered, the 1993 NCT hours of paid work distributions compared reasonably well to the monthly Labour Force Survey estimates. As noted above, a similar distribution of responses to that obtained in the 1991 Census was obtained in the 1993 NCT. In addition, the same kinds of differences relative to the LFS as had occurred in the 1991 and 1986 Censuses were obtained with the 1993 NCT hours worked in the reference week data¹.

It should be noted that the 1993 NCT hours worked in the reference week distribution obtained from Question 28 was quite different from the October and November 1993 Labour Force Survey distributions, but was much less different compared to the December 1993 Survey (see Appendix Table A-1). The 1993 NCT estimates of persons who worked 40 hours in the reference week were much higher than the October and November 1993 Survey estimates. The main reason for this finding was that the October and November 1993 LFS reference weeks each contained a statutory holiday (Thanksgiving and Remembrance Day).

The reader should note that the reference week for the 1993 NCT was predominantly the week of November 1-7 and the reference weeks for the October, November and December 1993 Surveys were October 11-17, November 8-14 and December 6-12, respectively. The November 1993 LFS reference week is closest to the 1993 NCT reference week but due to late enumeration for failed field edits and the absence of any statutory holidays in the December 1993 reference week, comparisons to the December 1993 LFS were also considered valid.

Comparisons were made to LFS actual hours worked in the reference week data in Appendix Table A-1, as opposed to LFS usual hours worked in the reference week data, since the 1993 NCT Question 28 utilises an actual hours worked in the reference week concept. Appendix Table A-2 compares the 1993 NCT actual hours worked distribution to the LFS usual hours worked distributions, at the national level by sex, October, November and December 1993 LFS. While the two sets of data differ conceptually and normally would not be compared, they were compared in this instance to illustrate the effect of the statutory holidays in the October and November 1993 Survey reference weeks on data comparability.

The data in Appendix Table A-2 indicates that the large percentage differences between the two data sources for the 40 hours worked category, relative to the October and November 1993 LFS actual hours worked distributions, observed in Appendix Table A-1, are much improved, or greatly reduced, when the NCT data is instead compared to the LFS usual hours worked distributions.

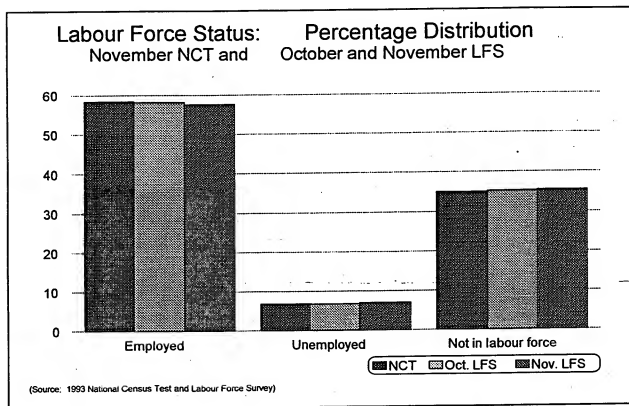
(ii) Labour Force Activity Estimates

In this section, national and provincial level comparisons of labour force activity estimates in the 1993 NCT and the LFS by sex are discussed followed by national level comparisons of the estimates in the two sources by age and sex. (Appendix Table A-3 compares labour force activity estimates at the national level by sex from the 1993 NCT and the October and November 1993 Labour Force Surveys.)

¹ Estimates of employed persons working less than 40 hours a week were lower in the 1993 NCT than estimates from the LFS. In the 1993 NCT more persons also reported working 40 hours in the reference week compared to the LFS. A similar situation had occurred in both the 1986 and 1991 Censuses.

In general, the 1993 NCT labour force activity estimates compared quite well with those of the monthly Labour Force Survey, in particular labour force activity estimates from the October 1993 LFS. When the estimates in the two data sources were compared by age and sex, similar kinds of differences to those observed during 1991 Census certification were also obtained.

Percentage distributions of 1993 NCT and October and November 1993 LFS labour force activity estimates for both sexes combined, (or for males and females separately) were very comparable at the national level.



The Labour Force Survey estimates were made as comparable as possible to the 1993 NCT estimates through simulation of 1993 NCT labour force activity concepts. (The number and type of questions used in the two data sources differ considerably.) It should be noted again, however, that the 1993 NCT estimates were not completely edited and imputed, while the LFS estimates were fully edited and imputed. The NCT non-response and invalid responses were re-distributed throughout the labour force activity categories, however, in an effort to simulate edit and imputation, which was not possible in the 1993 NCT.

Other differences between the two data sources, including differences in reference periods and enumeration methods, also contribute to the differences in estimates observed.

a) Comparisons of Labour Force Activity Estimates by Sex

Employment Estimates

At the national level, employment estimates in the two data sources differed by 0.9% and 1.7% relative to the October and November 1993 Surveys, respectively. This is similar to the differences observed during certification of the 1991 Census (a 2.9% difference relative to the May 1991 LFS and a 1.2% difference relative to the June 1991 LFS). Employment estimates for females were more comparable (differing by no more than 0.9%) than those for males (which differed by as much as 2.3%), at the national level, relative to the October and November 1993 Surveys.

Employment estimates differed most at the provincial level in Prince Edward Island, Nova Scotia and Saskatchewan, relative to the October 1993 LFS. However, the differences in estimates were higher, in most cases, relative to the November 1993 LFS.

Unemployment Estimates

Unemployment estimates differed by 2.7% at the national level (for both sexes together). The estimates for males differed by 1.8% relative to the October 1993 LFS and by 8.5% relative to the November 1993 LFS; for females the percentage differences in unemployment estimates relative to the October and November 1993 Surveys were just less than 5%, (or 4.5% and 4.9%, respectively).

Particularly large percentage differences in unemployment estimates were found in Prince Edward Island, New Brunswick and Newfoundland. Moderately high differences were also found in Manitoba, Saskatchewan and British Columbia.

Conceptual and question differences between the census and the Labour Force Survey have their greatest impact on the comparability of the unemployment estimates in the two data sources. Because of these differences, less comparable estimates can be expected compared to the other categories of the labour force activity variables.

Labour Force Estimates

Percentage differences in the total labour force estimates by sex, relative to the October and November 1993 LFS were even lower than those observed during certification of the 1991 Census.

Not in the Labour Force Estimates

Estimates of persons not in the labour force were also quite comparable, differing by 0.4% relative to the October 1993 LFS and by 1.2% relative to the November 1993 LFS. The differences in estimates were somewhat greater for females than males.

At the provincial level, estimates of persons who were not in the labour force differed to the greatest extent in Prince Edward Island, New Brunswick, Nova Scotia and British Columbia.

b) Comparisons of Labour Force Activity Estimates by Age and Sex

General

In the 1986 and 1991 Censuses employment and unemployment data were less comparable for the younger and older age groups, or those between 15 and 24 years of age and those 65 years of age and over, relative to the Labour Force Survey. In 1986 and 1991, census estimates of both the employed and unemployed were lower than those of the Survey, at the national level, for those aged 15-24 years, while the opposite was true for those aged 65 years and over.

Similar differences were observed when the 1993 NCT labour force activity estimates were compared to the October and November 1993 Surveys.

In 1991 and 1986 there were also fairly large differences for persons 15-24 years "not in the labour force", relative to the Labour Force Survey, at the national level (for example, a 23% difference between 1991 Census and June 1991 LFS estimates)². In the 1993 NCT, however, estimates of persons between the ages of 15 and 24 years "not in the labour force" were much less different, differing by only 3.3% and 3.8%, relative to the October and November 1993 Surveys, respectively.

The 1993 NCT labour force activity estimates were least comparable relative to the Survey for persons aged 65 years and over. In this age category the NCT estimate of persons not in the labour force was lower than the October and November 1993 LFS estimates. In addition, NCT estimates of persons 65 years and over in the labour force, especially those unemployed, differed substantially with those of the October and November 1993 Surveys (the 1993 NCT estimate of unemployed persons 65 years and over was more than double that of the October 1993 LFS). However, these differences are mostly attributable to response errors in the census in which older, retired respondents tended to give some evidence of work in the previous seventeen months in the census (e.g. their previous occupation or industry), in combination with responses indicating that they had not worked (e.g. they reported that they had last worked before January 1, 1992). In the 1991 Census, a pre-edit "fix" was used during edit and imputation processing to correct these kinds of response errors. This "fix" was not used, however, in the processing, or derivation, of the 1993 NCT labour force activity variable³.

² Undercounts of persons between the ages of 15 and 24 years the labour force in the census relative to the Survey were matched by overcounts in the census for these persons relative to the Survey in the "not in the labour force" category, as casual, temporary or other marginal types of participation in the labour force tended to be under-reported in the census.

³ Again, question and conceptual differences, as well as differences in methods of data collection, in the two data sources, also contributed to the differences in estimates noted for persons 65 years of age and over.

Participation Rates

The 1993 NCT participation rate was only one-half of one percentage point higher than the November 1993 LFS at the national level. The rates were only 0.3 of one percentage point higher for males and 0.7 of one percentage point higher for females, relative to the November 1993 LFS.

The largest difference in participation rates between the two data sources was observed in the 15-24 years of age and 65 years and over age categories. The 1993 NCT participation rate for persons 65 years and over was 2.6 percentage points higher than the November 1993 LFS rate; for 15-24 year-olds, the 1993 NCT rate was 1.4 percentage points lower relative to the November 1993 LFS. Differences in estimates of employed and unemployed persons in the 1993 NCT relative to the LFS in these age groups resulted in these differences. A similar situation had occurred in the 1991 Census.

Unemployment Rates

The 1993 NCT unemployment rates compared very well at the national level with both the October and November 1993 LFS. Relative to the October 1993 LFS there was no difference and relative to the November 1993 LFS there was a difference of only 0.4 of one percentage point. At the national level unemployment rates were slightly more comparable for females than males.

With the exception of the 15-24 years and 65 years and over age categories, the unemployment rates in the two data sources also compared quite well when compared by age and sex at the national level. For persons 15-24 years of age the rates differed by 2.4 percentage points relative to the November 1993 LFS; in the 65 years and over age category the rates in the two data sources differed by 1.3 percentage points. In the other age categories, unemployment rates in the two data sources differed by no more than only 0.7 of one percentage point.

Employment-Population Ratios

The 1993 NCT and November 1993 LFS employment-population ratios compared closely at the national level, differing by no more than 0.8 of one percentage point. The ratios for females were slightly more comparable than those for males. Differences relative to the Survey were again greater by age category, (especially the 25-34 years, 55-64 years and 65 years and over age categories), however, the differences which exist in the two data sources, already mentioned, help to explain the differences in ratios observed, by age category.

(iii) When the Respondent Had Last Worked Estimates

Appendix Table A-4 compares when the respondent had last worked data at the national level by sex from the 1993 NCT and the October and November 1993 Labour Force Surveys.

The "last worked in 1993" and "last worked in 1992" categories compared very closely to the November 1993 Survey, differing by no more than 1.0% at the national level (for males, females, or both sexes combined).

There was some variance in estimates between the two data sources when compared at the provincial level, however, for these two categories. For the "last worked in 1993" category, differences were greatest in Newfoundland, Prince Edward Island and Nova Scotia, relative to the November 1993 LFS. For the "last worked in 1992" category, overcounts in Nova Scotia, Ontario and Saskatchewan helped to compensate for undercounts in the other provinces, relative to the November 1993 LFS.

The "never worked in lifetime" estimates differed the most, however (nationally and provincially). In the 1993 NCT the "never worked in lifetime" estimate, derived from responses to Question 33, exceeded that of the November 1993 LFS by 27.0%. For males, the difference in estimates was larger than that for females, or 36.7% relative to the November 1993 LFS, compared to a difference of 23.1% for females. A similar situation also was encountered, however, in the 1991 Census. Response errors in the census, proxy reporting problems (parents for teenage children or young adults, or amongst unrelated persons sharing a household), self-enumeration in the census, as compared to the use of trained interviewers, and a much more extensive set of labour questions in the Survey all likely contributed to the differences in estimates observed.

3. Comparisons With the Survey of Consumer Finances (SCF)

(i) Weeks Worked in 1992 Estimates

Appendix Table A-5 compares weeks worked in 1992 data at the national level by sex from the 1993 NCT and the 1993 Survey of Consumer Finances.

As was the case in the 1981, 1986 and 1991 Censuses, a large difference in the 40-48 weeks category was observed when the 1993 NCT and the 1993 SCF data were compared. The 1993 NCT estimate of persons who worked 40-48 weeks in 1992 more than doubled that of the 1993 SCF. As in previous censuses, the 1993 NCT estimate of persons who worked 49-52 weeks was also 10.7% lower than that of the 1993 SCF. Differences in estimates were greater for females than males.

Very similar patterns of differences in estimates to those found at the national level were observed in each of the provinces.

Self-enumeration methods of data collection likely account for most of the differences noted. Without interviewer assistance, or clarification, in the 1993 NCT, as is the case in the SCF, (an annual supplement to the April LFS), it is probable that some respondents, especially teachers, tended to exclude paid leaves of absence (including vacations), when such leaves of absence should have been included. The questions asked of respondents in the two data sources were also different.

(ii) Full-time or Part-time Weeks Worked in 1992 Estimates

Appendix Table A-6 compares full-time or part-time weeks worked in 1992 estimates at the national level by sex from the 1993 NCT and the 1993 Survey of Consumer Finance.

The 1993 NCT estimates of persons who worked full-time or part-time weeks in 1992 compared quite well to the 1993 SCF data. Full-time workers in the 1993 NCT accounted for 78.4% of the total, compared to 77.1% in the 1993 SCF; part-time workers accounted for 21.6% of the total in the 1993 NCT and 22.9% of the total in the 1993 SCF.

Differences in estimates at the provincial level were similar to those at the national level, although the estimates differed to a greater degree than nationally in the Atlantic Provinces and in Alberta (and by a lesser degree than nationally in the other provinces).

Appendix Table A-7 compares full-time and part-time weeks worked distributions in the 1993 NCT and the 1981, 1986 and 1991 Censuses at the national level by sex. **Appendix Table A-7** indicates that the 1993 NCT full-time or part-time weeks worked in 1992 derived variable distribution compared quite well to similar distributions from the 1981, 1986 and 1991 Censuses.

C. Response Rates - LFS Sample and Edit Failure Study

The following tables (Tables 2 and 3) present 1993 NCT response rates for each of 1993 NCT Questions 28-33, 44 and 45. (Table 2 presents weighted and unweighted definite and potential response rates for the **Labour Force Survey Sample**. Table 3 presents unweighted definite and potential response rates for the **NCT Edit Failure Study (EFS) Sample**.) The definite and potential response rates are calculated according to whether "filter questions" (questions containing skip instructions) have been answered correctly, or incorrectly (including non-response, multiple response or invalid responses to the "filter question").

TABLE 2
RESPONSE RATES, 1993 NCT LFS SAMPLE, CANADA

	Rates Based on Unweighted Counts		Rates Based on Weighted Counts	
	Definite	Potential	Definite	Potential
Q.28 Hours Worked in Reference Week	97.8	—	97.7	—
Q.29 Temporary Lay-off or Absent	97.9	95.6	98.0	95.4
Q.30 New Job to Start in Next 4 Weeks	98.8	96.5	98.9	96.2
Q.31 Looked for Work in Past 4 Weeks	98.6	96.2	98.7	96.0
Q.32 Could Have Started a New Job Last Week	98.5	81.4	97.9	79.2
Q.33 When Last Worked	98.5	96.1	98.3	95.4
Q.44 Weeks Worked in 1992	96.7	93.6	96.1	93.5
Q.45 Full-time or Part-time Weeks Worked in 1992	99.6	94.4	99.5	94.2

Note: Potential response rates were only calculated for questions which could be "skipped". Question 28 had to be answered by all respondents.

Table 2 indicates that final response rates according to the definite method of calculation (after follow-up by the interviewers, however) were quite high in the main NCT Labour Force Survey Sample. Potential response rates were somewhat lower, especially the rate for Question 32, however, this rate depended on responses to two "filter questions", or Questions 28 and 31.

More importantly, however, Table 3, below, provides measures of initial response rates, prior to follow-up by interviewers for field-edit failures for each of Questions 28-33, 44 and 45, as obtained in the 1993 NCT Edit Failure Study. Definite response rates obtained in the EFS were also quite acceptable, ranging from 88.6% in Question 33 to 98.9% in Question 45. With the exception of Question 32, the potential response rates ranged from 80.1% to 84.2%.

TABLE 3
RESPONSE RATES, 1993 NCT EDIT FAILURE STUDY, CANADA
(BASED ON UNWEIGHTED COUNTS)

	Definite	Potential
Q.28 Hours Worked in Reference Week	93.1	-
Q.29 Temporary Lay-off or Absent	90.7	81.4
Q.30 New Job to Start in Next 4 Weeks	93.8	84.2
Q.31 Looked for Work in Past 4 Weeks	91.2	81.7
Q.32 Could have Started a New Job Last Week	97.3	47.7
Q.33 When Last Worked	88.6	79.2
Q.44 Weeks Worked in 1992	89.8	80.1
Q.45 Full-time or Part-time Weeks Worked in 1992	98.9	80.6

Note: Potential response rates were only calculated for questions which could be "skipped". Question 28 had to be answered by all respondents.

Assuming self-enumeration methods of data collection and mandatory follow-up by Census representatives will again be used in the 1996 Census for the labour force activity questions, these response rates are viewed as generally acceptable⁴.

D. Comments by Respondents (Step 10)

Respondent reactions to the 1993 NCT Questions 28-33, 44 and 45 were studied through review of respondent comments in Step 10, at the end of the questionnaire. NCT Report 25 (by L. McKeown) was used and a study of actual NCT questionnaires containing comments by respondents on Questions 28-33, 44 and 45 was undertaken.

⁴ It is understood that application of the "rule of six" for field follow-up, in which follow-up was required if any six or more questions or part questions in the household had not been answered initially, may not be undertaken during data collection operations in the 1996 Census. Application of the "rule of six" for field follow-up had contributed greatly to the high final response rates obtained in the 1993 National Census Test.

NCT Report 25 indicated that very few respondents stated that questions 28-33, 44 or 45 were difficult to answer in Step 10, Part A. (In Step 10, Part A respondents could list up to 5 questions.) In 51 and 88 instances out of a total of 12,273 households a questionnaire contained a response that Question 28 and 44, respectively, were difficult to answer. In Step 10, Part F, where respondents could report up to 6 questions to which they had objections, only 16 and 26 questionnaires included Questions 28 and 44, respectively.

Review of the actual comments provided by all respondents providing comments in Step 10 on Questions 28-33, 44 and 45 (a total of 107 questionnaires) indicated 3 main difficulties with Questions 28-33, 44 and 45:

1. **Retired Persons:** The most frequently mentioned problem by respondents in Step 10. (Questions 28-45 are mostly not relevant for retired persons and there should be much greater opportunity to skip questions.)
2. **Confusion Over Skip Instructions:** Encountered in Question 28 in particular; skips instructions in Question 31, 33 and 44 were far less problematic. (In Question 28 respondents entered "0" for number of hours worked and then skipped Questions 29-33, or reported hours and did not skip these questions.)
3. **Multiple Job-holders:** Questions 28-33, 34-39 and 44-45 were problematic (or difficult to answer) for persons holding more than one job.

Other problems included confusion over hours to be reported in the reference week when the person was sick or otherwise absent from work for part of the work week, persons with variable work hours who felt a "usual hours worked" concept (as opposed to "actual hours worked" concept) would be better and confusion over what actually constituted the reference week (i.e. Saturday to Sunday; Monday to Sunday, etc.). Some of these issues were also identified through observation and review of the Census Help Line and the Interviewer De-briefing sessions. Most of these kinds of problems were covered in the 1993 NCT Guide to respondents. Often these respondents reported in Step 10 that they had used the Guide, or the Census Help Line, and did find the information provided in these services useful. Additional information on how to handle absences from work when reporting total hours worked in the reference week should, however, be provided in the Guide.

To help alleviate skip instruction errors, in Question 28 the "none" check circle could be moved up before the number of hours box (so that respondents do not enter "0" in the box and then try to skip the subsequent questions for persons who did not work any hours in the reference week). Also, a check circle could be added for retired persons (and possibly for persons permanently unable to work for pay).

Most importantly, however, there did not appear to be a significant degree of difficulty, or confusion, caused by the introduction of the unpaid work questions. There also did not appear to be any difficulty surrounding "unpaid family workers", working directly towards the operation of a family farm, or business, possibly because this was type of work arrangement was listed in the first example provided in Question 28 (below the question).

E. Change in Wording of Question 28

The wording of Questions 28, 31, 32 and 33 was changed where necessary to accommodate the introduction of the new hours of unpaid work questions. The wording in Question 28 (hours worked for pay or in self-employment) was altered more than the other questions. The wording of the question was changed to clearly distinguish between what was to be reported in this question and that which was required for the hours of unpaid work questions. As a result, the wording used in 1993 NCT Question 28 was modified as follows:

FROM

"Last week, how many hours did this person work (not including volunteer work, housework, maintenance or repairs for his/her own home)?" (1991 Census)

TO

"Last week, how many hours did this person spend working for pay or in self-employment?" (1993 NCT)

In french, the question included the terms, «travail contre rémunération ou à un travail autonome». An investigation was made in order to determine whether this terminology, especially «travail contre rémunération», presented any problems to french respondents and in any way negatively affected the quality of responses provided.

The hours worked for pay or in self-employment distributions obtained in Question 28 in english, french and all questionnaires were compared to those obtained in the 1991 Census. These comparisons do not necessarily indicate a problem in the french wording of Question 28. As Table 4 shows, somewhat more respondents who completed french questionnaires reported "hours none" in the 1993 NCT compared to those who did so in the 1991 Census (48.8% compared to 44.4%; 42.8% reported "hours none" in the NCT english questionnaires), however, the same was also true for those completing english questionnaires.

TABLE 4
COMPARISON BETWEEN THE 1993 NCT AND THE 1991 CENSUS
FOR HOURS WORKED FOR PAY OR IN SELF-EMPLOYMENT CATEGORIES,
BY LANGUAGE OF QUESTIONNAIRE, CANADA

Frequency	English Questionnaire		French Questionnaire		Total Questionnaire	
	1993 NCT	1991 CENSUS	1993 NCT	1991 CENSUS	1993 NCT	1991 CENSUS
Total	100.0	100.0	100.0	100.0	100.0	100.0
1-19 Hours	7.1	6.0	5.6	4.3	6.7	5.6
20-29 Hours	4.1	4.5	4.8	4.4	4.3	4.5
30-39 Hours	10.4	12.3	13.7	17.0	11.2	13.4
40 Hours	17.2	20.5	13.8	16.8	16.4	19.6
41-49 Hours	5.7	5.7	5.3	5.1	5.6	5.5
50-124 Hours	9.9	9.2	6.8	6.3	9.3	8.5
None	42.8	39.6	48.8	44.4	44.2	40.8
Invalid	0.2	0.9	0.0	0.0	0.1	0.7
Non Response	2.3	1.4	1.1	1.6	2.2	1.5

Source: 1993 NCT, LFS Sample, Population and Household Files; 1991 Census, LFS Universe.

Less persons completing french questionnaires in the 1993 NCT reported 40 hours worked in the reference week compared to those who completed english questionnaires in the 1993 NCT, however, for persons completing both english or french questionnaires, relative to the 1991 Census, the percentage of persons reporting 40 hours was in each instance lower. Levels of non-response and invalid responses were also lower amongst persons using french questionnaires compared to both the 1991 Census and english 1993 NCT questionnaires.

Although comparisons of hours of paid work distributions obtained in the 1993 NCT and 1991 Census by language of questionnaire completed do not indicate a problem in the wording of the french version of 1993 NCT Question 28, it seems likely that the wording used in Question 28 in the french 1993 NCT questionnaires could be improved.

APPENDIX (COMPARISON TABLES)

APPENDIX TABLE A-1

EMPLOYED LABOUR FORCE 15 YEARS AND OVER BY HOURS WORKED IN THE REFERENCE WEEK AND SEX, WEIGHTED COUNTS, CANADA -
1993 NATIONAL CENSUS TEST AND OCTOBER, NOVEMBER AND DECEMBER 1993 LABOUR FORCE SURVEY COMPARISONS

CANADA	1993 NCT (^{'000s}) (A)	% DIST.	OCT '93 LFS (^{'000s}) (B)	% DIST.	% DIFF. (A)-(B)/(B)	NOV. '93 LFS (^{'000s}) (C)	% DIST.	% DIFF. (A)-(C)/(C)	DEC. '93 LFS (^{'000s}) (D)	% DIST.	% DIFF. (A)-(D)/(D)
BOTH SEXES											
TOTAL	12,133	100.0	12,488	100.0	-2.8	12,399	100.0	-2.1	12,308	100.0	-1.4
01-19 HOURS	1,452	12.0	1,493	12.0	-2.7	1,495	12.1	-2.9	1,407	11.4	3.2
20-29 HOURS	921	7.6	1,801	14.4	-48.9	1,418	11.4	-35.0	1,111	9.0	-17.1
30-39 HOURS	2,428	20.0	4,831	38.7	-49.7	3,366	27.1	-27.9	2,647	21.5	-8.3
40 HOURS	3,535	29.1	1,340	10.7	163.8	2,591	20.9	36.4	3,292	26.8	7.4
41-49 HOURS	1,199	9.9	816	6.5	46.9	1,120	9.0	7.1	1,309	10.6	-8.4
50 OR MORE	2,007	16.5	1,456	11.7	37.8	1,759	14.2	14.1	1,937	15.7	3.6
NONE (ABSENT)	590	4.9	751	6.0	-21.4	653	5.3	-9.6	603	4.9	-2.2
AVG. HRS. (0 HRS. EXCLUDED)	37.7		34		3.7	36		1.7	37.5		0.2
MALES											
TOTAL	8,850	100.0	8,828	100.0	-2.6	6,742	100.0	-1.4	8,666	100.0	-0.2
01-19 HOURS	537	8.1	501	7.3	7.2	512	7.6	4.9	507	7.6	5.9
20-29 HOURS	285	4.3	605	8.9	-52.9	489	7.3	-41.7	367	5.5	-22.3
30-39 HOURS	887	13.3	2,729	40.0	-67.5	1,603	23.8	-44.7	1,024	15.4	-13.4
40 HOURS	2,224	33.4	890	13.0	149.9	1,668	24.7	33.3	2,121	31.8	4.9
41-49 HOURS	844	12.7	580	8.5	45.5	769	11.4	9.8	879	13.2	-4.0
50 OR MORE	1,572	23.6	1,158	16.9	36.0	1,378	20.4	14.1	1,485	22.3	5.9
NONE (ABSENT)	301	4.5	366	5.4	-17.8	322	4.8	-6.5	282	4.2	6.7
AVG. HRS. (0 HRS. EXCLUDED)	41.5		37.7		3.8	39.7		1.8	39.4		2.1

APPENDIX TABLE A-1 (CONCL'D)

EMPLOYED LABOUR FORCE 15 YEARS AND OVER BY HOURS WORKED IN THE REFERENCE WEEK AND SEX, WEIGHTED COUNTS, CANADA -
1993 NATIONAL CENSUS TEST AND OCTOBER, NOVEMBER AND DECEMBER 1993 LABOUR FORCE SURVEY COMPARISONS

CANADA	1993 NCT (^{'000s}) (A)	% DIST.	OCT '93 LFS (^{'000s}) (B)	% DIST.	% DIFF. (A)-(B)/(B)	NOV. '93 LFS (^{'000s}) (C)	% DIST.	% DIFF. (A)-(C)/(C)	DEC. '93 LFS (^{'000s}) (D)	% DIST.	% DIFF. (A)-(D)/(D)
FEMALES											
TOTAL	5,483	100.0	5,660	100.0	-3.1	5,657	100.0	-3.1	5,640	100.0	-2.8
01-19 HOURS	915	16.7	992	17.5	-7.8	982	17.4	-8.8	900	16.0	1.7
20-29 HOURS	836	11.8	1,198	21.1	-46.8	928	18.4	-31.5	744	13.2	-14.5
30-39 HOURS	1,541	28.1	2,102	37.1	-26.7	1,783	31.2	-12.6	1,623	28.8	-5.1
40 HOURS	1,311	23.9	450	8.0	191.3	922	16.3	42.2	1,171	20.8	12.0
41-49 HOURS	355	6.5	236	4.2	50.4	350	6.2	1.4	431	7.6	-17.6
50 OR MORE	435	7.9	300	5.3	45.0	381	6.7	14.2	452	8.0	-3.8
NONE (ABSENT)	290	5.3	385	6.8	-24.7	331	5.9	-12.4	321	5.7	-9.7
AVG. HRS. (0 HRS. EXCLUDED)	33.1		29.5		3.6	31.4		1.7	31.3		1.8

APPENDIX TABLE A-2

EMPLOYED LABOUR FORCE 15 YEARS AND OVER BY HOURS WORKED IN THE REFERENCE WEEK AND SEX, WEIGHTED COUNTS,
CANADA - ACTUAL HOURS WORKED AND USUAL HOURS WORKED - 1993 NATIONAL CENSUS TEST AND OCTOBER, NOVEMBER
AND DECEMBER 1993 LABOUR FORCE SURVEY COMPARISONS

CANADA	1993 NCT (ACTUAL HOURS) (¹ 000s) (A)	% DIST.	OCT '93 LFS - USUAL HOURS (¹ 000s) (B)	% DIST.	% DIFF. (A)-(B)/(B)	NOV. '93 LFS - USUAL HOURS (¹ 000s) (C)	% DIST.	%DIFF. (A)-(C)/(C)	DEC. '93 LFS - USUAL HOURS (¹ 000s) (D)	% DIST.	% DIFF. (A)-(D)/(D)
BOTH SEXES											
TOTAL	12,133	100.0	12,488	100.0	-2.8	12,399	100.0	-2.1	12,306	100.0	-1.4
01-19 HOURS	1,452	12.0	1,339	10.7	8.4	1,395	11.3	4.1	1,397	11.4	3.9
20-29 HOURS	921	7.6	971	7.8	-5.1	973	7.8	-5.3	1,021	8.3	-9.8
30-39 HOURS	2,428	20.0	2,831	22.7	-14.2	2,893	23.3	-16.1	2,911	23.7	-16.6
40 HOURS	3,535	29.1	4,534	36.3	-22.0	4,426	35.7	-20.1	4,370	35.5	-19.1
41-49 HOURS	1,199	9.9	909	7.3	31.9	933	7.5	28.5	931	7.6	28.8
50 OR MORE	2,007	16.5	1,904	15.2	5.4	1,780	14.4	12.8	1,676	13.6	19.7
NONE (ABSENT)	590	4.9	0	0.0	-	0	0.0	-	0	0.0	-
AVG. HRS. (0 HRS. EXCLUDED)	37.7		37.9		-0.2	37.4		0.3	37.2		0.5
MALES											
TOTAL	6,650	100.0	6,828	100.0	-2.6	6,742	100.0	-1.4	6,666	100.0	-0.2
01-19 HOURS	537	8.1	440	6.4	22.0	463	6.9	16.0	477	7.2	12.6
20-29 HOURS	285	4.3	262	3.8	8.8	272	4.0	4.8	290	4.4	-1.7
30-39 HOURS	887	13.3	1,032	15.1	-14.1	1,056	15.7	-16.0	1,076	16.1	-17.6
40 HOURS	2,224	33.4	2,973	43.5	-25.2	2,895	42.9	-23.2	2,868	43.0	-22.5
41-49 HOURS	844	12.7	637	9.3	32.5	672	10.0	25.6	657	9.9	28.5
50 OR MORE	1,572	23.6	1,485	21.7	5.9	1,383	20.5	13.7	1,297	19.5	21.2
NONE (ABSENT)	301	4.5	0	0.0	-	0	0.0	-	0	0.0	-
AVG. HRS. (0 HRS. EXCLUDED)	41.5		41.7		-0.2	41.1		0.4	40.7		0.8

EMPLOYED LABOUR FORCE 15 YEARS AND OVER BY HOURS WORKED IN THE REFERENCE WEEK AND SEX, WEIGHTED COUNTS,
CANADA - ACTUAL HOURS WORKED AND USUAL HOURS WORKED - 1993 NATIONAL CENSUS TEST AND OCTOBER, NOVEMBER
AND DECEMBER 1993 LABOUR FORCE SURVEY COMPARISONS

CANADA	1993 NCT		DCT '93		% DIFF. (A)-(B)/(B)	NDV '93		% DIFF. (A)-(C)/(C)	DEC '93		% DIFF. (A)-(D)/(D)
	(ACTUAL HOURS) (000s) (A)	% DIST.	LFS - USUAL HOURS (000s) (B)	% DIST.		LFS - USUAL HOURS (000s) (C)	% DIST.		LFS - USUAL HOURS (000s) (D)	% DIST.	
FEMALES											
TOTAL	5,483	100.0	5,660	100.0	-3.1	5,657	100.0	-3.1	5,640	100.0	-2.8
01-19 HOURS	915	16.7	899	15.9	1.8	931	16.5	-1.7	920	16.3	-0.5
20-29 HOURS	636	11.6	709	12.5	-10.3	701	12.4	-9.3	731	13.0	-13.0
30-39 HOURS	1,541	28.1	1,799	31.8	-14.3	1,837	32.5	-16.1	1,835	32.5	-16.0
40 HOURS	1,311	23.9	1,562	27.6	-16.1	1,531	27.1	-14.4	1,502	26.6	-12.7
41-49 HOURS	355	6.5	272	4.8	30.5	261	4.6	36.0	274	4.9	29.6
50 OR MORE	435	7.9	419	7.4	3.8	396	7.0	9.8	378	6.7	15.1
NONE (ABSENT)	290	5.3	0	0.0	-	0	0.0	-	0	0.0	-
AVG. HRS. (0 HRS. EXCLUDED)	33.1		33.3		-0.2	33.1		0.0	33.0		0.1

APPENDIX TABLE A-3

LABOUR FORCE ACTIVITY ESTIMATES BY SEX, WEIGHTED COUNTS, CANADA - 1993 NATIONAL
CENSUS TEST AND OCTOBER AND NOVEMBER 1993 LABOUR FORCE SURVEY COMPARISONS

CANADA	1993 NCT (^{'000s}) (A)	% DIST.	OCT. '93 LFS (^{'000s}) (B)	% DIST.	% DIFF. (A)-(B)/(B)	NOV. '93 LFS (^{'000s}) (C)	% DIST.	%DIFF. (A)-(C)/(C)
TOTAL - BOTH SEXES								
Population 15+	21,592	100.0	21,493	100.0	0.5	21,518	100.0	0.3
Labour Force	14,065	65.1	13,934	64.8	0.9	13,901	64.6	1.2
Employed	12,804	59.4	12,488	58.1	0.9	12,399	57.8	1.7
Unemployed	1,461	6.8	1,446	6.7	1.0	1,501	7.0	-2.7
Not in Labour Force	7,527	34.9	7,559	35.2	-0.4	7,617	35.4	-1.2
Participation Rate	65.1		64.6		0.3	64.6		0.5
Unemployment Rate	10.4		10.4		0.0	10.8		-0.4
Employ.-Pop. Ratio	58.4		58.1		0.3	57.6		0.8
MALES								
Population 15+	10,564	100.0	10,486	100.0	0.7	10,498	100.0	0.6
Labour Force	7,675	72.7	7,823	72.7	0.7	7,598	72.4	1.0
Employed	8,894	65.3	8,826	65.1	1.0	8,742	64.2	2.3
Unemployed	781	7.4	795	7.8	-1.6	854	8.1	-8.5
Not in Labour Force	2,890	27.4	2,663	27.3	0.9	2,903	27.7	-0.4
Participation Rate	72.7		72.7		0.0	72.4		0.3
Unemployment Rate	10.2		10.4		-0.3	11.2		-1.1
Employ.-Pop. Ratio	65.3		65.1		0.1	64.2		1.0
FEMALES								
Population 15+	11,026	100.0	11,007	100.0	0.2	11,020	100.0	0.1
Labour Force	6,387	57.9	6,311	57.3	1.2	6,305	57.2	1.3
Employed	5,706	51.6	5,660	51.4	0.8	5,657	51.3	0.9
Unemployed	680	6.2	651	5.9	4.5	648	5.9	4.9
Not in Labour Force	4,841	42.1	4,896	42.7	-1.2	4,715	42.8	-1.6
Participation Rate	57.9		57.3		0.6	57.2		0.7
Unemployment Rate	10.6		10.3		0.3	10.3		0.4
Employ.-Pop. Ratio	51.8		51.4		0.3	51.3		0.4

APPENDIX TABLE A-4

WHEN RESPONDENT HAD LAST WORKED ESTIMATES BY SEX, WEIGHTED COUNTS, CANADA - 1993 NATIONAL CENSUS TEST
AND OCTOBER AND NOVEMBER 1993 LABOUR FORCE SURVEY COMPARISONS

CANADA	1993 NCT (^{'000s}) (A)	% DIST.	OCT. '93 LFS (^{'000s}) (B)	% DIST.	% DIFF. (A)-(B)/(B)	NOV. '93 LFS (^{'000s}) (C)	% DIST.	% DIFF. (A)-(C)/(C)
BOTH SEXES								
TOTAL	21,592	100.0	21,493	100.0	0.5	21,518	100.0	0.3
LAST WORKED IN 1993	14,642	67.8	14,550	67.7	0.8	14,605	67.9	0.3
LAST WORKED IN 1992	765	3.5	823	3.8	-7.0	771	3.6	-0.8
BEFORE 1992	4,460	20.7	4,768	22.2	-8.5	4,783	22.2	-6.8
NEVER WORKED	1,725	8.0	1,352	6.3	27.6	1,358	6.3	27.0
MALES								
TOTAL	10,564	100.0	10,486	100.0	0.7	10,498	100.0	0.6
LAST WORKED IN 1993	7,937	75.1	7,908	75.4	0.4	7,922	75.5	0.2
LAST WORKED IN 1992	364	3.4	386	3.7	-5.7	367	3.5	-0.8
BEFORE 1992	1,716	16.2	1,805	17.2	-4.9	1,808	17.2	-5.1
NEVER WORKED	548	5.2	388	3.7	41.2	401	3.8	38.7
FEMALES								
TOTAL	11,028	100.0	11,007	100.0	0.2	11,020	100.0	0.1
LAST WORKED IN 1993	6,705	60.8	6,642	60.3	0.9	6,683	60.6	0.3
LAST WORKED IN 1992	401	3.6	437	4.0	-8.2	405	3.7	-1.0
BEFORE 1992	2,744	24.9	2,963	26.9	-7.4	2,975	27.0	-7.8
NEVER WORKED	1,178	10.7	964	8.8	22.2	957	8.7	23.1

APPENDIX TABLE A-5

PERSONS WHO WORKED IN 1992 BY WEEKS WORKED IN 1992 AND SEX, WEIGHTED COUNTS, CANADA
1993 NATIONAL CENSUS TEST - 1993 SURVEY OF CONSUMER FINANCES COMPARISONS

CANADA	1993 NCT (^{000s}) (A)	1993 SCF (^{000s}) (B)	% DIFF. (A)-(B)/(B)
BOTH SEXES			
TOTAL WEEKS WORKED	14,765	14,701	0.4
1-13 WEEKS WORKED	1,213	1,318	-8.0
14-26 WEEKS WORKED	1,604	1,438	11.5
27-39 WEEKS WORKED	1,090	940	16.0
40-48 WEEKS WORKED	1,716	766	123.9
49-52 WEEKS WORKED	9,142	10,239	-10.7
MALES			
TOTAL WEEKS WORKED	7,999	7,961	0.5
1-13 WEEKS WORKED	596	676	-11.8
14-26 WEEKS WORKED	805	741	8.6
27-39 WEEKS WORKED	547	511	7.0
40-48 WEEKS WORKED	891	413	115.7
49-52 WEEKS WORKED	5,161	5,621	-8.2
FEMALES			
TOTAL WEEKS WORKED	6,767	6,740	0.4
1-13 WEEKS WORKED	618	642	-3.7
14-26 WEEKS WORKED	800	697	14.8
27-39 WEEKS WORKED	544	429	26.8
40-48 WEEKS WORKED	825	354	133.1
49-52 WEEKS WORKED	3,979	4,618	-13.8

APPENDIX TABLE A-6

PERSONS WHO WORKED IN 1992 BY FULL-TIME OR PART-TIME WEEKS WORKED
IN 1992 AND SEX, WEIGHTED COUNTS, CANADA - 1993 NATIONAL CENSUS TEST
AND 1993 SURVEY OF CONSUMER FINANCES COMPARISONS

CANADA	1993 NCT (¹ 000s) (A)	% DIST.	1993 SCF (¹ 000s) (B)	% DIST.	% DIFF. (A-B)/B*100
BOTH SEXES					
TOTAL	14,765	100.0	14,701	100.0	0.4
FULL-TIME	11,573	78.4	11,341	77.1	2.0
PART-TIME	3,192	21.6	3,360	22.9	-5.0
MALES					
TOTAL	7,999	100.0	7,961	100.0	0.5
FULL-TIME	6,966	87.1	6,787	85.3	2.8
PART-TIME	1,033	12.9	1,174	14.7	-12.0
FEMALES					
TOTAL	6,767	100.0	6,740	100.0	0.4
FULL-TIME	4,601	68.0	4,554	67.6	1.0
PART-TIME	2,166	32.0	2,186	32.4	-0.9

APPENDIX TABLE A-7

PERSONS WHO WORKED IN 1980, 1985, 1990 AND 1992, BY FULL-TIME
OR PART-TIME WEEKS WORKED IN THE REFERENCE YEAR AND SEX, CANADA

CANADA	1981 CENSUS	% DIST.	1986 CENSUS	% DIST.	1991 CENSUS	% DIST.	1993 NCT	% DIST.
BOTH SEXES								
TOTAL	12,609,190	100.0	13,256,585	100.0	14,934,315	100.0	14,765,420	100.0
FULL-TIME	10,191,260	80.8	10,417,480	78.6	11,944,775	80.0	11,573,265	78.4
PART-TIME	2,417,930	19.2	2,839,100	21.4	2,989,545	20.0	3,192,160	21.6
MALES								
TOTAL	7,378,835	100.0	7,490,360	100.0	8,138,025	100.0	7,998,880	100.0
FULL-TIME	6,571,885	89.1	6,529,325	87.2	7,157,215	87.9	6,986,265	87.1
PART-TIME	806,975	10.9	961,045	12.8	980,810	12.1	1,032,615	12.9
FEMALES								
TOTAL	5,230,355	100.0	5,766,220	100.0	6,796,290	100.0	6,766,550	100.0
FULL-TIME	3,619,395	69.2	3,888,160	67.4	4,787,560	70.4	4,600,870	68.0
PART-TIME	1,610,955	30.8	1,878,060	32.6	2,008,730	29.6	2,165,680	32.0

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